

Remarks

Reconsideration of the application is respectfully requested. Claim 1 was objected to. Claim 1 has now been
5 corrected and should be in full conformance.

Claims 1-3, 5-7 and 13 were rejected under Section 103 as being obvious over SE 502317 in view of Yasui and Watanabe. This rejection is respectfully traversed.

It is submitted that no new matter has been added to
10 the amended claim 1. For example, Figs. 2a-2b clearly show the outer surfaces of the driving wheels 21a, 21b, 21c engaging one another at contact points 29. The paragraphs [0026-0029] of the corresponding US patent application number US 2005/0011969 describe the contact between the three driving
15 wheels.

SE 502317 merely discloses diametrically opposite driving wheels 12, as shown in Fig. 4. The Swedish patent fails to teach or suggest three driving wheels that have outsides that engage one another to enclose the supply hose
20 disposed therein. The Swedish patent also fails to disclose each driving wheel having a concave jacket congruent with an outside of the supply hose and so that each jacket surface surrounds at least 100° of a circumference of the supply hose.

According to Webster's Unabridged Dictionary the
25 word "congruent" means "of the same shape and side; congruent figures, if placed on upon another, coincide exactly in all

their parts." This means the three concave jacket surfaces have the same shape as the outside of the supply hose so that they fit exactly around the outside of the supply hose.

Yasui does not cure these deficiencies. Yasui
5 merely discloses a cable transport apparatus that has endless transport belts 40a, 40b that form a V-shape relative to one another. A press wheel 55 (see Fig. 7) may be used to press on the cable. One of the main objects of Yasui is to allow both a thin cable 100 and a thick cable 200 to be successively
10 fed using the same apparatus without the trouble of replacement of the apparatus on site and without escape of electric cables from the transport apparatus and without reduction in cable transport speed (see col. 3, lines 15-24 and abstract). In col. 2, lines 15-24, Yasui explains that in
15 conventional transport apparatuses the distance between the driving wheels is constant and thus the gap between the belts 140a and 140b is also constant. In col. 2, Yasui further explains that the constant distance has the drawback of not permitting cables of different diameters to be fed by the same
20 transport apparatus without replacing the apparatus which is laborious and deteriorates working efficiency (col. 2 lines 45-52) and the cable may meander up and downs between the transport belts (col. 2, lines 30-38). Yasui's V-shape permits the thin cable 100 to be in contact with the lower
25 part of the V-shaped space while the thick cable 200 is in contact with the upper part of the V-shaped space in the same

apparatus (see abstract). The belts 40a, 40b have straight engagement surfaces so that Yasui's apparatus can accommodate many different sizes of cables since thick cable engage the upper part of the belts while thin cables engage the lower
5 part of the belts. More importantly, the belts do not have a cavity formed therein since that would limit the belts to only effectively transport only one size of cable.

In other words, the versatility of being able to transport both thin and thick cables with the same apparatus
10 is a critical feature of Yasui's invention. As indicated above, the third wheel 55 is merely a pressure wheel that exerts a pressure on the cable to increase the friction between the cable and the belts 40a, 40b (see col. 10, line 67 - col. 11, line 21).

15 It is submitted that Yasui fails to teach or suggest:

- 1) Three driving wheels that have outside segments in contact with one another to enclose a supply hose disposed therein;
- 2) A concave jacket surface on each driving wheel that is
20 congruent with an outside of the supply hose; and
- 3) Each concave jacket surface surrounding at least 100 degrees of the circumference of the supply hose.

It would not be obvious to modify Yasui to include a third belt 40c. Firstly, this modification is not taught or
25 suggested. Yasui merely suggest the pressure wheel 55 that exerts a pressure on the cable but does not cooperate with the

driving belts 40a, 40b. The pressure wheel can be moved up and down depending upon the size of the cable. Secondly, the modification of including a third belt and add cavities in the three belts would destroy the versatility of Yasui's invention which is the very essence of his invention. It simply would not make sense and the skilled artisan would not be motivated to make the required modifications.

It has long been held that for a modification to be obvious, Yasui must explicitly teach or suggest the required step to motivate the artisan to make the required modifications. In re Fine 5 USPQ.2d (Fed. Cir. 1988), the court ruled (on page 1944) that there must be a motivation for the required modification to be obvious. In Winner International Royalty Corp. v. Wing 48 USPQ.2d 1139, the court ruled (on page 1144) that there must have been some explicit teaching or suggestion in the art to motivate one of ordinary skill in the art to make the required modifications.

Applicant submits that Yasui completely lacks the required teaching or suggestion to motivate the artisan to make the required modifications to Yasui's invention. In other words, it would not be obvious for an artisan to add a third rotatable endless belt since that would destroy the versatility of his invention i.e. to be able to successively feed both small cables and thick cables. The addition of the third rotatable endless belt to the other two V-shaped endless belts so that the outsides are in contact with each other and

the addition of a cavity in each belt would create the very constant relationship between the belts that Yasui is teaching away from since Yasui's invention could only be used for one cable size. The required modification would be contrary to
5 Yasui's teaching and make his apparatus less effective.

Also, the required congruent fitting of the concave jacket surface around the outside of the cable would destroy the versatility of Yasui's invention since a cavity could only be congruent with one size of cable but would could not be
10 congruent with, for example, a much smaller or much larger size of cable.

It is therefore submitted that the required modification is not obvious because Yasui fails to teach or suggest the modification and because there is no motivation to
15 make the modification and because Yasui is teaching away from the required medication.

Watanabe does not cure these deficiencies either. Watanabe merely discloses a multi-wire feeding apparatus. As best shown in Figs. 1 and 3-4, Watanabe discloses a lower
20 endless belt 3 with teeth 10 and cavity 9 and an upper belt 14 (parallel to the lower belt 3) with teeth 16 and cavity 17 (see col. 6, lines 31-45). The lower belt 3 engages the upper belt 14 (see Fig. 4) so that the teeth 10, 16 prevent slippage therebetween and to completely enclose the wire W3 therein.

25 It is submitted that Watanabe also fails to teach or suggest three driving wheels that have outside segments in

contact with one another to enclose a supply hose disposed therein. Watanabe merely shows a lower belt with an elongate cavity and the teeth are designed to be engaged with the teeth of an upper belt that is parallel to the lower belt.

5 Watanabe's apparatus would require extensive modifications that are not taught or suggested to include three driving wheels with outsides engaging one another to enclose a supply hose as required by the amended claim 1. Watanabe's teeth 10 extend upwardly from the cavity 9 and it
10 is difficult to see how three Watanabe belts could engage one another's teeth while being congruent with the outside of a supply hose and so that each concave jacket surface surrounds at least 100 degrees of the circumference of a supply hose. By using three Watanabe belts to form a triangular shape, the
15 teeth would barely engage one another but, more importantly, the supply hose would never come into contact with the cavity (since the cavity would be too far away as a result of the protruding teeth engaging one another) let alone be congruent with the outside surface of the cable and be surrounded by at
20 least 100 degrees.

 It is therefore submitted that it would not be obvious to combine the Swedish patent with Yasui and Watanabe as suggested since Yasui is teaching away from such modification and there is no motivation to make the required
25 modifications. Even if they are combined all the limitations of the amended claim 1 are not satisfied. None of the cited

references teaches or suggests the first driving wheel having a first and second outside, the second driving wheel having a first and second outside, the third driving wheel having a first and second outside, the first outside of the first
5 driving wheel being in contact with the second outside of the third driving wheel, the second outside of the first driving wheel being in contact with the first outside of the second driving wheel, the second outside of the second driving wheel being in contact with the first outside of the third driving
10 wheel to completely enclose the supply hose disposed therein, as required by the amended claim 1. Additionally, none of the cited references teaches or suggests three driving wheels so that three concave jacket surfaces are congruent with an outside of the supply hose. Watanabe only shows two
15 diametrically opposite belts that each have a cavity enclosing a wire but not three belts and it would require extensive modifications to use three belts, as explained above.

In view of the above, it is submitted that the amended claim 1 is allowable.

20 Claims 2-3, 5-7 and 13 are submitted to be allowable because the claims depend on the allowable base claim 1 and because the claims include limitations that are not taught or suggested in the cited references.

Claim 4 was rejected under Section 103 as being
25 obvious over SE 502317 in view of Yasui and Watanabe as applied to claims 1-2 above and further in view of Noda. This

rejection is respectfully traversed.

5 Claim 4 is submitted to be allowable because the claim depends upon the allowable base claim 1 and because the claim includes limitations that are not taught or suggested in the cited references.

 Claims 8-12 were rejected under Section 103 as being obvious over SE 502317 in view of Yasui and Watanabe as applied to claims 1-2 above and further in view of Taitel. This rejection is respectfully traversed.

10 Claims 8-12 are submitted to be allowable because the claims depend on the allowable base claim 1 and because the claims include limitations that are not taught or suggested in the cited references.

The application is now submitted to be in condition
for allowance, and such action is respectfully requested.

Respectfully submitted,

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